

We claim:

1. A color projection display system and the like, comprising two color LCoS panels, a polarizing beam splitter/or a group of polarizing beam splitters, and a?
5 projection lens, wherein

a) the said color LCoS panels are all with micro dichroic filter array;
b) the said polarizing beam splitter/or group of polarizing beam splitters divides the incident light into two orthogonal linear polarized light beams, polarized beam 1 and polarized beam 2, and makes them emerge at different
10 locations;

c) the said two color LCoS panels are located at the output ends of the light path of the said polarized beam 1 and said polarized beam 2, respectively, modulate the said two polarized beams according to the input image signal, and then reflect the modulated polarized beam 3 and polarized beam 4 into
15 the said polarizing beam splitter or group of polarizing beam splitters again, with the polarization directions of the said polarized beam 3 and the said polarized beam 4 rotated 90 degrees from those of the said polarized beam 1 and the said polarized beam 2, respectively;

d) the said polarizing beam splitter or group of polarizing beam splitters
20 combines the said polarized beam 3 and the said polarized beam 4 together into one image beam and project it out to the projection lens;

e) the said projection lens amplify the said image beam and project it out for

color display.

2. A system in accordance with Claim 1, wherein the said group of polarizing beam splitters is a cuboid comprising four right angle prisms with polarizing beam splitter coatings on their right angle surfaces, while the said four polarizing beam splitter coated surfaces form a cross shape.
3. A system in accordance with Claim 1, wherein the said group of polarizing beam splitters is a cuboid comprising four polarizing beam splitter cubes, with the four hypotenuses (polarizing beam splitter coating surfaces) of the said four polarizing beam splitter cubes forming a cross shape.
4. A system in accordance with Claim 3, wherein half wave plates are inserted between some or all the contacting surfaces of the said four polarizing beam splitter cubes.
5. A system in accordance with Claim 1, wherein quarter wave plates are attached to the surfaces of the said color LCoS panels.
6. A system in accordance with Claims 1 to 5, wherein the said two color LCoS panels are equipped with the same primary color micro dichroic filter array.
7. A system in accordance with Claims 1 to 5, wherein the said two color LCoS panels are equipped with different primary color micro dichroic filter array.
8. A system in accordance with Claim 7, wherein the primary colors of the said micro dichroic filter array of one of the said two color LCoS panels are red, green, and blue, while the primary colors of the said micro dichroic filter array of the other color LCoS panel are cyan, yellow, and magenta.

9. A system in accordance with Claim 1, wherein the said input image signals to the said two color LCoS panels correspond to different view angles for 3D display, or the same view angle for regular 2D display.

10. A system in accordance with Claim 9, wherein the said system includes a
5 position-adjusting mechanism used to align the corresponding pixels of the said two color LCoS panels together for regular 2D display.